

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
STANDARD ANNULAR PRESSURE TEST

Operator TERRA ENERGY, LTD.

State Permit No. 41250

Address 1165 ELKVIEW DR.

USEPA Permit No. MI-137-2D-0042

GAYLORD, MI 49735

Date of Test 7/16/13

Well Name TERRA ENERGY LTD. 1-8 SWD

Well Type 2D

LOCATION INFORMATION

SE Quarter of the NW Quarter of the SW Quarter

of Section 08; Range 30N; Township 04W; County OTSEGO;

Company Representative Rob Buckle; Field Inspector _____;

Type of Pressure Gauge _____ inch face; _____ psi full scale; _____ psi increments;

New Gauge? Yes ☐ No ☒ If no, date of calibration _____ Calibration certification submitted? Yes ☒ No ☐

TEST RESULTS

Readings must be taken at least every 10 minutes for a minimum of 30 minutes for Class II, III and V wells and 60 minutes for Class I wells.

For Class II wells, annulus pressure should be at least 300 psig. For Class I wells, annulus pressure should be the greater of 300 psig or 100 psi above maximum permitted injection pressure.

Original chart recordings must be submitted with this form.

5-year or annual test on time? Yes ☒ No ☐

2-year test for TA'd wells on time? Yes ☐ No ☐

After rework? Yes ☐ No ☒

Newly permitted well? Yes ☐ No ☒

Pressure (in psig)

Time	Annulus	Tubing
<u>9:37 AM</u>	<u>335 PSI</u>	<u>- 27</u>
<u>9:47 AM</u>	<u>335 PSI</u>	<u>- 27</u>
<u>9:57 AM</u>	<u>335 PSI</u>	<u>- 27</u>
<u>10:07 AM</u>	<u>335 PSI</u>	<u>- 27</u>

Casing size 5 1/2"

Tubing size 2 7/8"

Packer type AD-1 COATED

Packer set @ 2085'

Top of Permitted Injection Zone _____

Is packer 100 ft or less above top of _____

Injection Zone ? Yes ☐ No ☒

If not, please submit a justification.

Fluid return (gal.) 2 gal

Comments:

Test Pressures: Max. Allowable Pressure Change: Initial test pressure x 0.03 _____ psi
Test Period Pressure change _____ psi

Test Passed ☒ Test Failed ☐

If failed test, well must be shut in, no injection can occur, and USEPA must be contacted within 24 hours. Corrective action needs to occur, the well retested, and written authorization received before injection can recommence.

I certify under penalty of law that this document and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (See 40 CFR 144.32(d))

DAVE JOHNSTON

Printed Name of Company Representative

Dave Johnston

Signature of Company Representative

7-16-13

Date